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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,301	01/02/2004	David M. Giorgi	00970.0011-US-U1	8801
44163	7590	01/08/2008		
CYR & ASSOCIATES, P.A. 605 U.S. Highway 169 Suite 300 Plymouth, MN 55441			EXAMINER VAN ROY, TOD THOMAS	
			ART UNIT 2828	PAPER NUMBER
			MAIL DATE 01/08/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	Application No. 10/751,301	Applicant(s) GIORGI ET AL.	
	Examiner Tod T. Van Roy	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13, 18 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 and 20 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 7 and 9-12, 14, 15, 17, 19 is/are rejected.
- 7) ☒ Claim(s) 3, 6, 8 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/18/2007 has been entered.

### ***Response to Amendment***

The Examiner acknowledges the amending of claims 1, 2, 5, 7, 10-11, 13, 18, 20, addition of claims 21-23 and cancellation of claims 14-17, and 19.

### ***Response to Arguments***

The Examiner agrees that the claims as currently amended overcome the previous art rejections.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-5, 7, 9-12, and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Zucker et al. (US 5394415)

With respect to claims 1 and 9-12, Zucker discloses a pulsed laser diode driver comprising: a slow voltage discharge stage comprising a first capacitive energy storage element (fig.1d C2 capacitor) having a first energy storage capacity and being operatively charged to a first voltage magnitude, a fast voltage discharge stage comprising a second capacitive energy storage element (fig.1d C1) having a second energy storage capacity less than the first energy storage capacity (col.17 lines 4-6), and being operatively charged to a second voltage magnitude being greater than the first voltage magnitude (col.17 lines 6-9), a switch controlled circuit path (fig.1d), and a laser diode (fig.1d represented by Ca, taught to be many types of lasers including solid state, col.13 lines 40-45) controllably coupled through the switch controlled circuit path to the first capacitive energy storage element for operatively receiving a discharge of energy therefrom, and to the second capacitive energy storage element for operatively receiving a discharge of energy therefrom (switches close and the capacitors discharge to the load).

With respect to claim 2, Zucker discloses the driver of claim 1 further comprising a first charge source (fig.1d V2) for establishing the first voltage magnitude, and a second charge source (fig.1d V1) for establishing the second voltage magnitude, wherein, the first and second capacitors are coupled to the respective sources, and the switch has a first terminal coupled to a first terminal of the laser diode and a second terminal coupled to a first terminal of the first capacitor and to a first terminal of the second capacitor, and a second terminal of the laser diode is coupled to a second terminal of the first capacitor and to a second terminal of the second capacitor (the

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examiner notes the use of the "coupling" term and its broad meaning, see the previous office action).

With respect to claim 4, neither terminal of the switch is grounded.

With respect to claim 5, Zucker discloses that outlined in the rejection to claim 2, and further discloses the use of a second switch (fig.1d).

With respect to claim 7, no terminals of the switches are grounded.

With respect to claims 21-23, Zucker further discloses closing switches to discharge the energy from the capacitive storage elements to the laser (fig.1d).

#### ***Allowable Subject Matter***

Claims 3, 6, 8, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 3, 6, and 8 are believed allowable as the prior art was not found to teach the given ground configurations described with respect to the switching elements.

Please see the previous office action for reasons given for the allowance of claims 13, 18 and 20.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tod T. Van Roy whose telephone number is (571)272-8447. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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